

# A NEWLY RECORDED GENUS AND A NEW SPECIES OF MEGALOTHRIPS UZEL (THYSANOPTERA, PHLAEOTHIRIPIDAE) FROM CHINA

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**Abstract** This paper deals with the genus *Megalothrips* Uzel which is newly recorded for China. *Megalothrips randus* is described as new to science. The type specimens are deposited in the Collection of the Entomological Museum, Northwest A & F University, China (NWAFU).

**Key words** Thysanoptera, Phlaeothripidae, *Megalothrips*, new species, new record, China

## 1 Introduction

The genus *Megalothrips* was erected by Uzel in 1895 with *M. bonnanii* as the type species. Up to now, only 7 species have been reported in the world (Mound 2007, <http://www.ento.csiro.au/thysanoptera/worldthrips.html>); of them five from the Holarctic Region, three from North America (Mound & Palmer 1983), two from Europe (Mound & Palmer 1983), and two from Asia (Mound & Palmer 1983, Okajima 2006). This genus is closely related to the genus *Megathrips* Targioni-Tozzetti. The diagnostic characters of *Megalothrips* include the head highly arched dorsally; the anteroangular setae placed separated to the midlateral setae, not closed to each other; and the maxillary stylets closed together in center of head (Stannard 1968). The genus is also related to the genus *Bacillothrips* Buffa. The diagnostic characters of *Megalothrips* include the pelta is characteristic with slender lateral lobes. In Asia, the genus species has not been reported more than one hundred years until 2006 Okajima described a new species from Japan.

## 2 *Megalothrips* Uzel. New record to China

*Megalothrips* Uzel 1895: 224. Type species *Megalothrips bonnanii* by subsequent designation, Bagnall 1909: 350.

*Megalothrips* Uzel Mound & Palmer 1983: 77.

## 3 Generic Diagnosis

Large sized species. Head elongate, swollen dorsally; postocular setae pair II usually longer than pair I. Eyes small, usually shorter on ventral surface. Antennae eight-segmented, segment III and IV with two and four sense cones, respectively. Mouth-cone short and rounded; maxillary stylets

long, reaching eyes. Pronotum short; anteroangular setae rather close to midlateral; epimeral sutures incomplete. Praepectus present. Fore tarsi with or without a small tooth. Pelta broadly hat-shaped, median lobe and lateral wings narrowly fused. Abdominal tergites II to VII each with two pairs of signoid retaining setae; tergite VI of male with a pair of tubercles laterally; the tubercles long and horn-like. Tube slender with hairy.

## 4 *Megalothrips randus* sp. nov. (Figs 1–5)

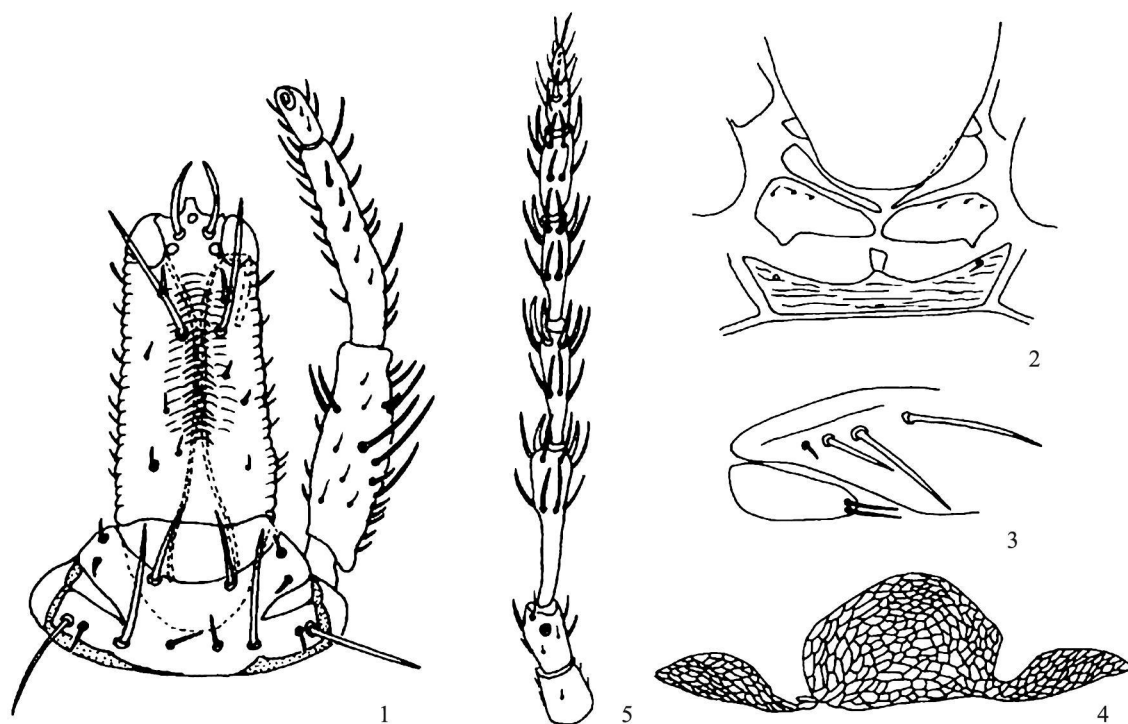
Female. Body length 6.6 mm. All body dark, except antennal segment III 2/3 yellowish brown at base. Wings colorless; the forewings and hindwings with gray median line in basal half. Major setae black brown. All measurements are given in micrometer ( $\mu\text{m}$ ).

Head slightly projecting in front of eyes (Fig. 1), much longer than width, 3.26 times as long as width of eyes; cheeks gradually arching to base, with a few pairs spines and transverse striate. Eyes moderate in size although proportionately small when compared to head size. Interocellar setae long, postocular short, postocular setae II very long, longer than interocellar; these head setae blunted apically. Postocular setae pair I 50 apart from the eyes and pair II 100. Ocelli present. Antennae (Fig. 5) 8-segmented, segments VI and VII ventrally produced at apex, segment VIII lanceolate. Sense cone formula: III 1+1, IV 2+2, V 1+1<sup>+</sup>, VI 1+1, VII 1 ventrally; segment III longest. Length/width ratio of antennal segments: III 10.20, IV 4.88, V 3.78, VI 2.80, VII 2.29, VIII 3.25. Mouth cone short and broadly rounded. Maxillary stylets long, retracted into the posterior margin of eyes.

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Figs 1–5 *Megubthrips randus* sp. nov. (♀) 1 Head, fore leg and pronotum, dorsal view. 2 Pro-midsternum. 3 Basal wing bristles. 4 Abdominal pelta I. 5. Antenna.

closed to each other, but not touching within the center of head. Maxillary bridge absent.

The prothorax (Fig. 1) short, 0.22 times as long as head at middle, 2.71 times as broad (across epimera) as long (median length); anterior slightly transverse. Epimeral sutures incomplete. Major setae blunt at apex, but posteroangular setae reduced, pointed at apex; posteroangular setae the longest. Praepectus (Fig. 2) present; probasisternum (Fig. 2) well developed, and close to each other; spinasternum short and rod-shaped; mesoprasternum (Fig. 2) with transversely striate; metanotum anterior with transverse striate; reticulate lateral and metanotum anteriorangular with 3 Paris minute bristles. The fore wings broad, slightly narrow at apex, with 4 sub-basal setae, the inner I reduced, the rest blunt at apex and with 42–45 accessory fringe cilia. All legs with weakly striate; foretarsi inner without tooth.

Pelta (Fig. 4) broadly hat-shaped, median lobe and lateral wings narrowly fused, without micro-pore at near basal margin. Abdominal tergite II to VII with two pairs sigmoid retaining setae. Tergite II to IX anterior with reticulation, posterior with transverse striate; tergite V length 330 at median, width 1 060,  $B_1$  setae on tergite V length 420,  $B_2$  370; setae on tergite IX shorter than tube, apical blunt; anal setae 260–270, all shorter than tube; tube with many short setae, almost straight, as long as head and 5.84 times as long as basal width. Tergite X (tube) length

1 110, width basal 190, apical 95.

Measurements of holotype female in  $\mu\text{m}$ . Head median length 1 110, from anterior margin of eyes 10, width across eyes 340, across cheeks 350, across cheeks just before basal collar 400; eye dorsal length 150, ventral length 120. Pronotum median length 240, width anterior 410, posteroangular 650. Tube length 1 110, basal width 190, apical width 95. Antennal segments I to VIII length (width) as follows: 90 (65); 100 (50); 255 (25); 195 (40); 170 (45); 140 (50); 80 (35); 65 (20). Length of setae: postocular pairs I 50, pairs II 360, postocellar 40, interocellar 200, prothoracic anteroangular about 30, anteromarginal about 170, mid-lateral 50, posteroangular 290, epimeral 300, posteroangular 60, antemedian setae 260,  $B_1$  on tergite IX 400,  $B_2$  300,  $B_3$  340, anal 260–270.

Male: Not found.

Holotype ♀, Yangjiacao, Badong, Hubei Province, 14 July 2006, 1 700 m, Habitat Shrub, coll. by ZHOU HuiFeng (NWAU). Paratypes 2♀, same data as holotype (NWAU).

Remarks. This new species is similar to *M. andrei* Mound & Palmer, 1983, but can be distinguished from the latter by: 1) wings with 4 sub-basal setae and inner I reduced; 2) the maxillary stylets retracted into posterior margin of eyes; 3) antennal segment III 2/3 yellowish brown at base, the rest segments dark. The latter: 1) wings with 3 sub-basal setae; 2) the

maxillary stylets retracted to posterior margin of eyes;  
3) antennal segment III pale, yellow, slightly darker in apical fifth. The new species also similar to *M. arvidens* Okajima, 2006, but can be distinguished from the latter by: 1) antennal segment III 2/3 yellowish brown at base, the rest segments dark; 2) body and thorax dark; 3) major body setae black brown. The latter: 1) antennal segment III yellow, with brownish apex; segments IV and VIII sometimes paler than segments V – VII; 2) body dark brown, thorax somewhat paler; 3) major body setae yellowish.

**Eymology.** The specific name is derived from the mouth cone rounded of the new species.

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## 中国一新纪录属和一新种记述 (缨翅目, 管蓟马科)

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**摘要** 报道了中国灵管蓟马亚科 1 新纪录属: 圆巨管蓟马属 *Megabthrups* Uzel (国外分布: 日本, 马来西亚, 欧洲, 北美; 国内分布: 湖北), 1 新种: 圆巨管蓟马 *Megabthrups roundus* sp. nov. 模式标本保存于西北农林科技大学昆虫博物馆 (NWAFU)。

此新纪录属属于体大型种, 头延长, 背面高拱; 复眼后鬃对 II 长于对 I。复眼小, 复眼在腹面观短。触角 8 节, 节 III 和 IV 分别有 2 个和 4 个感觉锥。口锥短圆, 口针长, 缩入头内复眼处。前胸短, 前角鬃靠近侧鬃; 后侧缝不完全; 前下胸片存在; 前跗节无或有弱的小齿; 腹部节 I 盾板帽状, 两侧叶与中央有细的连接。腹部节 II ~ VII 有 2 对发达的握翅鬃; 雄虫腹部节 VI 两侧有 1 对角状物延伸; 管长, 有细长毛。

圆巨管蓟马, 新种 *Megabthrups roundus* sp. nov. (图 1~5)

此新种与 *M. andrei* 相似, 其主要区别是前者: 1) 翅基

**关键词** 缨翅目, 管蓟马科, 巨管蓟马属, 新种, 新纪录, 中国。

**中图分类号** Q969.34

鬃 4 根, 内 I 退化; 2) 口针缩入头内很深, 达复眼后缘内; 3) 触角节 III 基部的 2/3 黄褐色, 其余各节黑色。后者: 1) 翅基鬃 3 根; 2) 口针缩入头内很深, 达复眼后缘; 3) 触角节 III 淡黄色, 节 V 端部略黑。新种与 *M. arvidens* 也相似, 其主要区别是前者: 1) 触角节 III 基部的 2/3 黄褐色, 其余各节黑色; 2) 身体和前胸黑色; 3) 身体各主要鬃棕黑色。后者: 1) 触角节 III 黄色, 端部褐色; 节 IV 和 VII 茶褐色, 比节 V ~ VII 颜色淡; 2) 体茶褐色, 前胸略淡; 3) 身体各主要鬃淡黄色。

正模 ♀ (NWAFU), 湖北巴东杨家槽, 2006-07-14 周辉凤采; 副模 ♂ ♀, 同正模。雄虫未采获。

寄主: 灌木丛。

词源: 新种名 “*roundus*”, “圆” 来源于新种口锥端部宽圆。

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